

DETAILED ACTION

Status of Application

Claims 1-8, 10-25, 28, 32-34 are canceled.

Claims 9, 26, 27, 29-31, and 35 are pending and presented for examination.

Allowable Subject Matter

Claims 9, 26, 27, 29-31, and 35 are allowed.

The following is an **examiner's statement of reasons for allowance**:

The closest prior art on record: Umemura et al. (US Patent No. 4,487,627), Miyake et al. (JP 10-317086), Hara et al. (JP 05-283751), and Miglierini et al. (NATO Science Series, 1998) teach methods and properties of iron silicides but fail to teach the manufacturing method of iron silicide powder comprising reducing steps, particularly a two stage synthesis from FeSi to FeSi₂. The Umemura reference teaches mixing iron oxides and silicon materials first, prior to reducing and does not teach the two step synthesis [See Examples]. Miyake teaches dissolving iron and silicon and first producing alpha and then beta FeSi₂ but fails to teach a reduction step or the two step synthesis [See Paragraph 0002 and 0003]. The Hara reference teaches a two step production process of FeSi₂, which involves adhering Si particles to the surface of FeSi but does not specify reduction or phase transitions [See Abstract]. And finally, Miglierini et al. disclose the phase transition mechanism in Figure 1 [Page 14] but one would not

have been motivated to produce alpha phase FeSi_2 in the same method as claimed by the present invention based on this information alone.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Claims 9, 26, 27, 29-31, and 35 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER A. SMITH whose telephone number is (571)270-3599. The examiner can normally be reached on Monday - Thursday, 9:30am to 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J.A. LORENZO/
Supervisory Patent Examiner, Art Unit 1793

Jennifer A. Smith
March 29, 2010
Art Unit 1793

JS